IN THE SPECIFICATION

Please replace the paragraph at page 13, line 19, to page 14, line 5, with the following rewritten paragraph:

This embodiment uses the ZF-DF elimination principle disclosed in the introduction. The outputs of the antennae 1..L are connected to a battery of K receivers 800_l to 800_k of the rake type with the structure described in Fig. 5. The output signals of the receivers are subjected to a matrix-type multiplication (805) by the matrix $(F^T)^{-1}$ where F is the lower triangular matrix obtained by Cholesky decomposition of the correlation matrix R of the signatures of the different users ($R=F^T.F$). Each output line of the matrix multiplication comprises a series of modules (810_k) to (870_k) with the same functions as the corresponding modules (710_k) to (770_k). The module ~~(860_k)~~ corresponding to 760_k has been depicted here in two parts, namely (861_k) for the modulation function and (862_k) for the spectral respreading function. The output signal of an interleaving module ~~(850_k)~~ is subtracted at the respective inputs of the subsequent stages k', k'>k at ($807_{k',k}$), after multiplication at ($806_{k',k}$) by the coefficient $A_k.F_{k,k'}$. The choice of the output of (861_k) rather than the output of (810_k) remodulated as in the conventional ZF-DF method makes it possible to advantageously profit from the channel decoding in order to refine the elimination of interference at the following stage. An L-tuplet ($\chi_{\ell,\kappa}$) is obtained at the output of each channel filter (870_k). As in the parallel elimination method, for each user k, the L-tuplet $\left(\sum_{\kappa'\neq\kappa}\chi\ell,\kappa'\right)$ is deducted at (880_k), from each L-tuplet of antenna output signals (p), in order to eliminate the contribution due to the users other than k. An elimination of the serial type and an elimination of the parallel type are then carried out. As in the parallel elimination method, the process described can be iterated.

Please replace the paragraph at page 14, line 33, to page 15, line 11, with the following rewritten paragraph:

This embodiment transposes the technique of equalisation by decision feedback (DF) to the multi-user context. The modules (1000), (1010),...(1080) are modules identical to the modules (900), (910),...,(980) of Fig. 9, each module operating, as stated, on a vector with K components. The module ~~(1060)~~ corresponding to 960 has been depicted here in two parts (1061) and (1062) in order to separate the modulation function (1061) from the spectral spreading function (1062). The device comprises a precursor transverse filter (1005) identical to the filter (905) and a postcursor filter (1007) filtering the reinterleaved and remodulated output of the module (1061). The output of the postcursor filter (1007) is subtracted (at 1006) from the ~~input of~~ output of the precursor module (1005) and the result is provided as an input to the decision module (1010). The assembly consisting of the transverse filter (1005) and feedback filter (1007) can there also be optimised according to a known technique, ZF or MMSE for example. In the first case, this embodiment can be seen as a generalisation of the ZF-DF mode disclosed in Fig. 8.